MICHIGAN ENVIRONMENTAL SCIENCE BOARD
LEAD PANEL

MEETING SUMMARY
MONDAY, AUGUST 8, 1994
NATURAL SCIENCE BUILDING
ENTOMOLOGY CONFERENCE ROOM
MICHIGAN STATE UNIVERSITY, EAST LANSING, MI

PANEL MEMBERS PRESENT

Dr. Jonathan Bulkley, Chair
Dr. George Wolff
Dr. David Long
Dr. Raymond Demers
Mr. Keith Harrison, MESB Executive Director

DMB/EAD SUPPORT STAFF PRESENT

Mr. Jesse Harrold, Environmental Officer
Mr. Alex Morese, Graduate Student Intern

I CALL TO ORDER

Dr. Jonathan Bulkley, Chair, called the meeting of the Michigan Environmental Science Board (MESB) Lead Panel to order at 1:15 p.m.

II EXECUTIVE DIRECTOR'S REPORT

Mr. Harrison discussed his request to the U.S. Environmental Protection Agency (USEPA) for data from a lead efficacy abatement study nearing completion. The report is due September 30, 1994. The USEPA will not release the study because it is in draft form. Because the USEPA turned down an oral request for a speaker to address the Panel about the work, Mr. Harrison submitted a written request. The Panel also received a copy of a U.S. General Accounting Office report on lead which had bee previously requested by Dr. Bulkley and a report regarding the status of various USEPA lead programs.

III PRESENTATIONS

Martha Stanbury, New Jersey Department of Health, provided an overview of New Jersey's occupational lead surveillance program. The New Jersey lead register and all related activities are located within the agency that provides occupational services in the state. The program has five objectives: (1) data collection, (2) data analysis and dissemination, (3) targeting and carrying out evaluation strategies in the workplace to reduce lead exposure, (4) servicing individuals reported, and (5) servicing reporting physicians. The program is capturing data on most of the employers reporting federal Occupational Safety and Health Administration (OSHA)-required biological monitoring,

but missing non-compliant employers. The program has been operational since 1985. Physician reporting has been required since 1990. The state's reporting regulation includes children. The standard for children was recently lowered to 20 ug/dl.

Ms. Stanbury indicated that of the 2,000 reports received annually by New Jersey's Department of Health Occupational Surveillance program, 95% come from laboratories and 5% from physicians. Each report is matched against a computerized register of people already reported, then each individual is assigned a unique ID number that remains with them for tracking purposes. The employer is given a code name. If it is a first report, a work place follow-up is done. Because of resource limitations, no follow-up is done in cases with measurements from 25 ug/dl to 40 ug/dl, although those cases are kept on record. The department investigates cases with measurements greater than 40 ug/dl. The follow-up consists of an employer interview to determine compliance status, including compliance with biological monitoring regulations, and the providing of educational materials. All patients with blood levels of 40 ug/dl and greater are interviewed at the time of the initial report for detailed information about themselves and the circumstances of their exposure. If there are children in the home, the employee is sent an informational package encouraging them to have the children tested. A self-administered questionnaire and a packet of educational materials are sent to referring physicians. The information from the original report and that acquired by the department are entered into the database.

Lead exposure among children of exposed workers is a concern. In a recent pilot study 8 of 28 children of adults on the New Jersey lead register were found to have blood lead levels greater than 10 ug/dl. There were no data on other possible exposures routes for the children. The state currently have data on 70 children and is planning a collaborative study on take-home exposures with the National Institute for Occupational Safety and Health (NIOSH), using a control group.

Because New Jersey does not have a state OSHA, employers with reports of exposures of 50 ug/dl or greater are referred to the federal OSHA for enforcement. Exceptions are self-employed workers, or cases where the job has ended and there is little likelihood of additional exposure. The department is planning to negotiate with OSHA to reduce that level to 40 ug/dl.

There are currently 20,000 reports on 4,000 individuals on the register. Of the 20,000 total reports, 25% show results above 40 ug/dl and 2% are above 60 ug/dl. Of the 4,000 people, about 30% tested over 40 ug/dl at least once. The construction industry is over represented at the high test levels. The majority of the exposures are reported from battery manufacturing plant and from the bridge renovation and lead abatement industries. Forty-one percent, or 146, of the 359 companies on the database (reporting since 1985) have reported blood lead levels greater than 50 ug/dl. Of those, only 29 were referred to OSHA after the cooperative agreement went into effect. Overall, the rate of referral has been low for a variety of reasons, including OSHA's inability to inspect all the companies (New Jersey has had to do some of the actual inspections), the change over from lead-based to non-lead-based products or processes by several

of the companies which had been reporting in the past, and the fact that OSHA only just started reviewing constructions cases in 1993.

OSHA has been looking for ways to target its inspection program more effectively. Currently, the agency is basing monitoring decisions on employer maintained illness and injury logs. State-based lead surveillance programs may turn out to be more effective. For the first 16 referrals made by New Jersey, OSHA inspections found 284 violations, of which 156 were for lead related problems. Essentially, the companies with blood lead exposures over 50 ug/dl also had a higher rate of other violations. The program also helps OSHA enforcement by providing employers with educational materials that make it more difficult for them to plead ignorance of regulations and control mechanisms.

Ms. Stanbury indicated that the New Jersey program publishes an annual newsletter with updated information on its occupational lead surveillance program as well as on other surveillance activities. Nationally, there are about 20 states that participate in the occupational lead surveillance program by reporting data that are compiled by NIOSH and published in *Morbidity and Mortality Weekly Report*.

Ms Stanbury stated that reported state and national statistics are limited due to missing information on reports from out-of-state laboratories who are not required to report; physicians who are not in compliance with the reporting law; laboratories that send specimens to other laboratories for testing and neither report the findings; and employers who do not test their workers. Some of the missing information can be retrieved through tracking back to the physician through the laboratories that they use. New Jersey is in the process of tracking employers by using environmental databases to identify employers who use lead. Ms. Stanbury pointed out that New York, California, and Ohio have regulations that require electronic reporting of all lead data. Ms. Stanbury also indicated that the American National Standards Institute is in the process of developing a standardized computer medical record transmission that has a standard format for laboratories, hospitals and physicians.

Richard Rabin, Massachusetts Department of Labor, discussed the various uses for the lead registry. In the construction industry, NIOSH will be conducting a study through various lead registries to look at lead exposure and blood lead levels of construction workers, pre- and post-passage of the construction standard. The registries will also be used to identify individual companies to publicize findings and provide educational materials to workers, management and physicians. Another use for registries will be to monitor legal and regulatory requirements for reporting. Mr. Rabin pointed out that the Massachusetts regulations which require reporting has been useful in getting laboratories to report. He indicated that using the registry with a database does not require sophisticated computer software to track day-to-day problems. In Massachusetts, the registry is administered in the state Department of Labor with support from the state Department of Health and an advisory board. The data management system allows follow-up on individuals and focuses on information over a period of time. From the data available on the system, Mr. Rabin indicated that they

can search a given company and get specific information such as how many people at the company have tested at blood lead levels over 40 ug/dl for a given period of time. The system also provides an individual profile which follows a person's blood lead levels from the first blood lead test.

Dr. Demers asked what triggers an industrial hygiene visit. Mr. Rabin replied that, as in most states, industrial hygiene visits are triggered at 25 ug/dl. At a level of 40 ug/dl, an follow-up visit takes place, where persons are interviewed and provided with educational materials. Mr. Rabin indicated that over 1,000 laboratory blood lead level reports are received per year, and about 25% to 30% of them are at levels of 40 ug/dl and above. Laboratory results documenting for an individual two blood lead levels greater than 40 ug/dl, and laboratory results documenting one blood lead level grater than 50 ug/dl will warrant a worksite investigation. Blood lead levels 60 ug/dl and above are referred to a medical consultant and subsequently a physician.

Mr. Rabin stated that Massachusetts has found that the bulk of adult blood lead level reports are reported by OSHA-certified laboratories. Every three or four months OSHA sends out a list of certified laboratories and a list of state lead registries that require reporting. Mr. Rabin pointed out that OSHA and state registries can also complement each other in terms of data exchange.

Dr. Demers asked about time trends analyses in Massachusetts and New Jersey. Mr. Rabin stated that Massachusetts has not looked at time trends in its program's three year existence. Ms. Stanbury stated that there has been a drop in New Jersey since the initiation of its program in 1985. As previously stated, she felt that that may be due to a loss of reporting from a company that went out of business.

Dr. Demers asked about the success rate for contacting and obtaining missing information from a physician. Mr. Rabin indicated that New Jersey obtains about 75% of the personal identifiers from physicians. In the next step, contacting the people, there is about a 60% success rate.

Glenn Brown, Wayne County Department of Public Health, provided an update regarding the Michigan Department of Public Health's (MDPH) efforts to develop mandatory reporting on blood lead levels.

Mr. Brown provided a brief background on the rules process since his involvement as chair of the MDPH Legislative Rules Subcommittee. He indicated that the subcommittee was charged with the responsibility of identifying the causes of lead poisoning that were amenable to legislative corrective action. The subcommittee was to rank the causes in order of importance and assist in drawing up the legislation.

Initially, the committee was given 14 topics to address. The 14 topics have since been modified to eight, of which mandatory reporting is the top priority. The subcommittee submitted its recommendations for mandatory reporting to the MDPH Advisory Committee in mid-May and received approval June 15, 1994. This was the committee's

tenth attempt at approval. At present, the document is out to 18 laboratories for comment, as directed by the formal rules provision process.

The three objectives of the subcommittee in authoring the reporting form were: (1) to ensure that the caretaker is quickly informed of the test results, (2) to develop a state database and (3) to ensure that local health departments are informed so that they may take appropriate action.

Dr. Bulkley asked if employment data were purposely left off the proposed Michigan blood lead reporting form and what led to this decision. Mr. Brown indicated that employer identification was considered in earlier drafts. The MDPH Advisory Committee was concerned about making the form too cumbersomeness by requesting too much information and deleted the employment data request. He indicated that demographic information also suffered the same fate.

Dr. Bulkley asked what happens when the MDPH receives a notification of a person with a blood lead level of 65 ug\dl, for instance. Ms. Vandenbosch indicated that when a high adult blood lead level is reported to their office, they immediately send a copy to the MDPH Bureau of Environmental and Occupational Health, who does the follow-up. The only data the MDPH Lead Unit receives are the laboratory telephone and the sample identification numbers. Most of the time the MDPH Lead Unit has to call the laboratory and then the physician to find out the age of the patient. The MDPH and the laboratories would appreciate a standard required reporting form but it appears that the health care providers consider that excessive.

Drs. Wolff, Long and Demers commented on several inadequacies of the current MDPH draft blood lead reporting form. Mr. Harrison observed that there appeared to be considerable discrepancies in adult occupational blood lead reporting between Michigan and comparable states, and that the Lead Panel has received no hard data or reasonably explanation to counter this observation.

Based on information provided by Ms. Vandenbosch on adult blood lead level reporting responsibilities within the MDPH, Mr. Harrison requested that Ms. Catherine Virskus have the MDPH Bureau of Environmental Health provide the Panel with information on the 88 reported Michigan cases of adults with high blood lead level for 1993 and a description on how they gather and report the adult blood lead data they collect.

Dr. Demers stated the reporting on occupational disease in the United States, in general, is inadequate. There is no reason the attending physician office cannot enter the occupation of the patient on the reporting form. He added that Detroit has a population of about 75,000 Arab-Americans and should be entered on the form as a minority population. Ms. Vandenbosch commented that the Arab-Chaldean Council in Dearborn does childhood blood lead screening and education.

Based on comments from Dr. Scott and Ms. Vandenbosch, Dr. Bulkley requested that staff acquire the blood lead reporting forms from New Jersey, Massachusetts, California

and New York and provide copies to MDPH. Mr. Harrison indicated that he would follow- up on the request.

Dr, Bulkley asked if there were any special regulations which address lead in school and day-care center water supplies. Ms. Vandenbosch answered that were not.

In response to a question from Mr. Harrison regarding lead-based paint remediation, Ms. Vandenbosch suggested that Dennis Livingston of the Baltimore Jobs and Energy Project be contacted to address the Panel. She indicated that Mr. Livingston is not a "100% paint removal" advocate.

Dr. Demers commented that the Panel may wish to consider developing a two-dimensional matrix to help it target remediation strategies. On one axis would be subpopulations at risk (children, construction workers, etc.) and on the other, sources of exposure (paint, soil, dust, water, air, etc.). This format might facilitate the Panel's prioritization of remediation strategies.

IV PUBLIC COMMENT AND QUESTIONS

There were no comments or questions from the public attending the meeting.

V PANEL MEMBER ASSIGNMENTS

Dr. Bulkley stated that at the May meeting, the Panel had agreed that Dr. Wolff would address section "G" of Directive 1, Dr. Demers would address section "C" of Directive 1, and Dr. Bulkley would work on the remainder of Directive 1. Mr. Harrison was assigned to work on Directive 3. No assignment for Directive 2 was made at that time since it would be dependent what was written on Directive 1.

Following discussion, the following adjustments were made to the Panel assignments by Dr. Bulkley: (a) sections "D" and "E" were merged with Section B of Directive 1, and (b) Dr. Long was assigned to assist Dr. Wolff with part "G" of Directive 1. The Panel agreed to have a draft of Directive 1 completed by the end of September.

VI ADJOURNMENT

The meeting was adjourned at 4:27 p.m.

Keith G. Harrison, M.A., R.S. Cert. Ecol.
Executive Director
Michigan Environmental Science Board